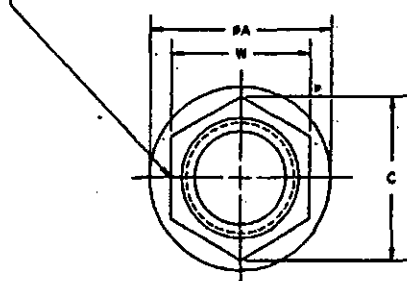
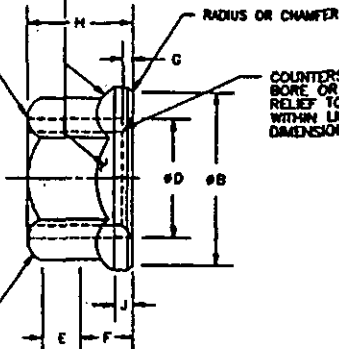


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DESIGN OF WRENCHING PAD FACES BETWEEN WRENCHING CORNERS IS OPTIONAL IF THE WRENCHING CORNERS ARE WITHIN THE LIMITS OF E, W, AND C BEFORE LUBRICATION AND THE LIMIT OF THE AREA BETWEEN THE CORNERS IS WITHIN THE MAXIMUM LIMIT OF W FOR THE E LENGTH WRENCHING CORNERS, BEFORE LUBRICATION.

RADIUS, CHAMFER  
OR SQUARE

CONCAVED OR CONICAL SURFACE  
BETWEEN TOP OF RING BASE, WRENCHING  
CORNERS, AND AREA BETWEEN CORNERS



COUNTERSINK COUNTER  
BORE OR RADIUS  
RELIEF TO THREAD T  
WITHIN LIMITS OF  
DIMENSIONS D AND C.

(L)

MANUFACTURER'S IDENTIFICATION REQUIRED  
FOR SIZES .1840-32 AND LARGER. SIZES  
.1380-32 AND SMALLER AT MANUFACTURER'S  
OPTION. (POSITION OPTIONAL)

TOOL MARK OR DISTORTION  
PERMISSIBLE IN LOCKING AREA

TABLE I

SIZE DASH NO.	(a) THREAD T	#A MAX.	#B MIN.	C MIN.	#D		(d) E MIN.	(e) F MIN.	G	
					MAX	MIN			MAX	MIN
-02	.086-56UNC-3B	.167	.137	.138	.106	.086	.045	.019	.021	.004
-04	.1120-40UNC-3B	.206	.176	.171	.142	.112	.050	.028	.027	.005
-06	.1380-32UNC-3B	.244	.214	.207	.168	.138	.055	.039		
-08	.1640-32UNC-3B	.290	.260	.244	.194	.164	.060	.041	.031	.006
-3	.1800-32UNF-3B	.330	.290	.277	.220	.190	.065	.043		
-4	.2500-28UNF-3B	.420	.388	.347	.388	.250	.090	.057	.036	.007
-5	.3125-24UNF-3B	.520	.482	.419	.482	.312	.120	.077		
-6	.3750-24UNF-3B	.620	.575	.491	.575	.375	.125	.089	.042	.008

SIZE DASH NO.	#D		J MIN.	(c) W ACROSS FLATS		(b) X	(g) AXIAL STRENGTH LB MIN	WEIGHT LB/100 MAX	(f) WRENCHING TORQUE TEST VALUES IN. LB. MIN.
	MAX	MIN		MAX	MIN				
-02	.100	.060	.010	.127	.122	.0025	.660	.020	5
-04	.125	.103		.158	.150		1,110	.050	10
-06	.141	.115		.190	.181		1,670	.080	20
-08	.125	.125	.015	.221	.213	.003	2,490	.150	30
-3	.188	.154		.252	.243		3,470	.180	60
-4	.219	.204		.316	.304		6,200	.350	150
-5	.266	.251	.023	.378	.367	.004	9,820	.600	330
-6	.282	.287	.030	.440	.430		15,200	.800	530

- (a) THREADS BEFORE LUBRICATION PER MIL-S-8879.  
 (b) BEARING SURFACE SHALL BE SQUARE WITH PITCH DIA WITHIN X WHEN MEASURED IN ACCORDANCE WITH MIL-N-25027.  
 (c) DIMENSION ACROSS FLATS INCLUDES DEFORMATION OF SELF LOCKING DEVICE.  
 (d) MINIMUM LENGTH OF EACH WRENCHING CORNER.  
 (e) MINIMUM DISTANCE FROM THE WASHER FACE OF THE NUT TO THE BEGINNING OF THE MINIMUM LENGTH E OF EACH WRENCHING CORNER.  
 (f) NUT SHALL BE TESTED FOR WRENCHING TORQUE BY THE USE OF A BOX OR SOCKET WRENCH.  
 (g) TEST BOLTS SHALL BE 180,000 PSI MIN.

(L) DENOTES CHANGES

INCH-POUND

PREPARING ACTIVITY: DLA-IS CUSTODIANS: ARMY- AV NAVY-AS AIR FORCE- 99 DLA-	MILITARY SPECIFICATION SHEET TITLE NUT, SELF-LOCKING, 450F, REDUCED HEXAGON, REDUCED HEIGHT, RING BASE, NON-CORROSION RESISTANT STEEL	SPECIFICATION SHEET NUMBER MS21042 L 18 OCT 93 SUPERSEDING MS21042 K 30 NOV 88 (SEE NOTE 4.) AMSC- N/A FSC 5310
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DISTRIBUTION STATEMENT

A. Approved for public release; distribution is unlimited.

Page 1 of 2

DD Form 672, MAY 88

PREVIOUS EDITIONS ARE OBSOLETE

THE REQUIREMENTS FOR ACQUIRING THE PRODUCT(S) DESCRIBED HEREIN SHALL CONSIST OF THIS SPECIFICATION SHEET AND THE ISSUE OF THE FOLLOWING SPECIFICATION LISTED IN THAT ISSUE OF THE DODDS SPECIFIED IN THE SOLUTION: MIL-N-25027

THIS SPECIFICATION IS APPROVED FOR USE BY ALL DEPARTMENTS AND AGENCIES OF THE DEPARTMENT OF DEFENSE.

THE REQUIREMENTS FOR ACQUIRING THE PRODUCT(S) DESCRIBED HEREIN SHALL CONSIST OF THIS SPECIFICATION SHEET AND THE ISSUE OF THE FOLLOWING SPECIFICATION LISTED IN THAT ISSUE OF THE DODISS SPECIFIED IN THE SOLICITATION: ML-N-25027

THIS SPECIFICATION IS APPROVED FOR USE BY ALL DEPARTMENTS AND AGENCIES OF THE DEPARTMENT OF DEFENSE.

TABLE II

Form Approved  
OMB No. 0704-0188

INTERCHANGEABILITY TABLE										
CANCELLED AND INACTIVATED PART NUMBERS										SUBSTITUTIVE PART NUMBERS
AN363	AN364	AN365	MS20364	MS20365	MS21040	NAS679	NAS1021	NAS1022	NAS1291	
---	---	---	---	---	---	---	---	---	---	X02 MS21042 02
---	---	---	---	---	---	---	---	---	---	-02 MS21042 L02
---	---	-440C	---	-440C	-04	X04W,X04	AX04	---	---	X04 MS21042 -04
---	---	---	---	---	L04	A04	---	A04	---	-04 MS21042 L04
---	---	-448C	---	---	---	---	---	---	---	NONE
-632	-632C	-632C	-632C	-632C	-06	X06W,X06	AX06	---	AX06	X06 MS21042 -06
---	-640C	-640C	---	---	---	---	---	---	---	NONE
---	---	---	---	---	L06	A06	---	A06	---	-06 MS21042 L06
-832C	-832C	-832C	-832C	-832C	-08	X08W,X08	AX08	---	AX08	X08 MS21042 08
---	---	---	---	---	L08	A08	---	A08	---	-08 MS21042 L08
---	-836C	-836C	---	---	---	---	---	---	---	NONE
-1024	---	-1024C	---	---	---	---	---	---	---	NONE
-1032	-1032C	-1032C	-1032C	-1032C	-3	X3W,X3	AX3	---	AX3	X3 MS21042 -3
-420	---	-420C	---	---	---	---	---	---	---	NONE
---	---	---	---	---	L3	A3	---	A3	---	-3 MS21042 L3
-428	-428C	-428C	-428C	-428C	-4	X4W,X4	AX4	---	AX4	X4 MS21042 -4
---	---	---	---	---	L4	A4	---	A4	---	-4 MS21042 L4
-518	---	-518C	---	---	---	---	---	---	---	NONE
-524	-524C	-524C	-524C	-524C	-5	X5	AX5	---	AX5	X5 MS21042 -5
---	---	---	---	---	L5	A5	---	A5	---	-5 MS21042 L5
-616	---	-616C	---	---	---	---	---	---	---	NONE
-624	-624C	-624C	-624C	-624C	-6	X6	AX6	---	AX6	X6 MS21042 -6
---	---	---	---	---	L6	A6	---	A6	---	-6 MS21042 L6
---	---	---	---	---	-7	---	---	---	---	NAS679 X7
---	---	---	---	---	L7	---	---	---	---	NAS679 A7
---	-720C	---	-720C	---	---	---	---	AX7	A7	SEE MS21245
---	-820C	---	-820C	---	---	---	---	AX8	A8	SEE MS21245
---	-918C	---	-918C	---	---	---	---	AX9	A9	SEE MS21245
---	-1018C	---	-1018C	---	---	---	---	AX10	A10	SEE MS21245
---	-1216C	---	-1216C	---	---	---	---	AX12	A12	SEE MS21245
---	-1414C	---	-1414C	---	---	---	---	AX14	A14	SEE MS21245
---	-1614C	---	-1614C	---	---	---	---	---	---	NAS1022 A17
---	-1812C	---	-1812C	---	---	---	---	AX18	A18	SEE MS21245
---	-2012C	---	-2012C	---	---	---	---	AX20	A20	SEE MS21245

## REQUIREMENTS:

- MATERIAL:** STEEL UNS G10350 (ANSI C1035) PER AMS 5080, QQ-S-700  
 UNS G10420 (ANSI C1042)  
 UNS G10500 (ANSI 1050) PER AMS 5085  
 UNS G40270 (ANSI 4027) PER ASTM A322  
 UNS G40370 (ANSI 4037) PER ASTM A322, A331, A519, A547, AMS 6300  
 UNS G86300 (ANSI 8630) PER AMS 6280, 6355, 6530, 6550  
 UNS G87400 (ANSI 8740) PER AMS 8322, 8323, 8325, 8327, 8358
- FINISH:** PLATING, CADMIUM PLATED IN ACCORDANCE WITH QQ-P-418 TYPE II, CLASS 2.  
 DRY FILM LUBRICATED NUTS IN ACCORDANCE WITH QQ-P-418; TYPE AND CLASS ARE OPTIONAL  
 IF THE NUTS WILL MEET THE SALT SPRAY REQUIREMENTS OF QQ-P-418, TYPE II.
- LUBRICANT:** DRY FILM OR NON-DRY FILM IN ACCORDANCE WITH MIL-N-25027. OTHER LUBRICANTS SHALL BE SOLUBLE IN THE CLEANER SPECIFIED IN PROCUREMENT SPECIFICATION.
- HARDNESS:** 49 HRC MAX
- SURFACE TEXTURE:** SURFACE TEXTURE IN ACCORDANCE WITH ANSI/ASME B46.1. UNLESS OTHERWISE SPECIFIED THE SURFACE TEXTURE SHALL NOT EXCEED 125 MICROINCHES.
- PART NUMBER:** THE PART NUMBER SHALL CONSIST OF THE BASIC MS NUMBER FOLLOWED BY A DASH NUMBER FROM TABLE I. LETTER L BEFORE FIRST DASH NUMBER DESIGNATES DRY FILM LUBRICATED NUTS.

EXAMPLE OF PART NUMBERS MS21042L4=.2500-28 NUT, CADMIUM PLATED, DRY FILM LUBRICATED.  
 MS21042-4=.2500-28 NUT, CADMIUM PLATED, NOT DRY FILM LUBRICATED.

## NOTES:

- DIMENSIONS IN INCHES.
- REMOVE ALL SHARP EDGES AND BURRS.
- THESE NUTS SHALL BE USED IN ACCORDANCE WITH THE LIMITATIONS OF MS33588.
- MS21042 SUPERSEDES: AN363, AN364, AN365, MS20364, MS20365, MS21040, NAS 679 INPART, NAS 1021 INPART, NAS 1022 INPART, NAS 1291 INPART
- IN THE EVENT OF A CONFLICT BETWEEN THE TEXT OF THIS STANDARD AND THE REFERENCES CITED HEREIN, THE TEXT OF THIS STANDARD SHALL TAKE PRECEDENCE.
- REFERENCED GOVERNMENT (OR NON-GOVERNMENT) DOCUMENTS OF THE ISSUE LISTED IN THAT ISSUE OF THE DEPARTMENT OF DEFENSE INDEX OF SPECIFICATIONS AND STANDARDS (DODISS) SPECIFIED IN THE SOLICITATION FORM A PART OF THIS STANDARD TO THE EXTENT SPECIFIED HEREIN.
- BIDS SHALL BE SOLICITED ONLY FROM THE MANUFACTURERS OR DISTRIBUTORS LISTED ON OPL-25027.

PREPARING ACTIVITY: DLA-IS

CUSTODIANS: ARMY-AR NAVY-AS

AIR FORCE-99 DLA-

REVIEW: AR, AS, MI

USER: ER

PROJECT NUMBER: 5310-1941

DISTRIBUTION STATEMENT

A. Approved for public release; distribution is unlimited.

## MILITARY SPECIFICATION SHEET

TITLE  
 NUT, SELF-LOCKING, 4507, REDUCED HEXAGON,  
 REDUCED HEIGHT, RING BASE, NON-CORROSION  
 RESISTANT STEEL

SPECIFICATION SHEET NUMBER

MS21042 L 18 OCT 93

SUPERSEDING  
 MS21042 K 30 NOV 88 (SEE NOTE 4.)

AMSC- N/A FSC 5310

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